PIKES PEAK RADIO AMATEUR ASSOC.

Ø BEAT

COLO. SPRINGS, COLORADO

OCTOBER 1969

NUCLEAR BLAST FILM, ELECTIONS HIGHLIGHTS OF ANNUAL MEETING

Election of four members to the PPRAA Board of Directors and of the four officers of the club---president, vice president, secretary and treasurer and a film "Project Gnome," will be the highlights of the annual meeting of the PPRAA Wednesday, 8 October, starting at 7:30 p.m. at the Naval Reserve Training Center, Lake and Logan Streets.

The film, which shows the first nuclear detonation conducted under AEC's Plowshare Program for development of peaceful uses of nuclear explosives--from it's planning stage through the early months of the post detonation period when scientists entered the man-created cavern, is being brought from California by Larry Lewis, WA6BGG (ex-WAØDGL), who, with his XYL Bonnie will be visiting his parents, Eldon and Rosemarie Lewis, WAØERA and WAØ-MNL, and also the PPRAA at the time of the October meeting.

As stated in last month's Zero Beat, members nominated for the board positions by the nominating committee were Jerry shop, WØICQ; Julian "Doc" D. Cornell,

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GEORGE KOWALSKI TO STAY HERE

A bit of good news was forthcoming at the September PPRAA meeting when George Kowalski, who had resigned as vice president and board member of PPRAA and as Emergency Coordinator for the area due to plans to leave the Colorado Springs area for a new residence in Arizona or New Mexico, stated that he had decided that the Colorado Springs area was the best place to live after all and had cancelled plans to leave.

This is the second time in recent years that a "change in plans" has been for the benefit of the PPRAA. Many of the members will, no doubt, remember that not too long ago we almost lost Ed Pompae to a change of jobs that would have taken him to New Jersey. After making plans to leave, Ed finally changed his mind and succumbed to the "livability" of this area.

The retention of these two is a "break" for the PPRAA, for both of them are very active and beneficial members of the club and either of them would be "hard to replace."

Unfortunately, we have lost good members in the past due to military transfers, ect., but, well, we can't have everything!

ZERO BEAT
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BOARD OF DIRECTORS
Pres. - Pete Demario, KØUDG
Vice Pres. - Ed Pompea, KØZPG
Secty. - Rosemarie Lewis, WAØMNL
Treas. - Rudy Wroblewski, WAØPJG
***
Harold Combs, WAØPNR
Eldon Lewis, WAØERA
Bill King, WØLKD
Frank Craw, WØHWH

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The PPRAA meets the second Wednesday of each month in the U. S. Naval Reserve Training Center, Lake and Logan Streets, starting at 7:30 p. m. All radio amateurs and other interested persons are invited to attend.

COPY DEADLINE for NOVEMBER ZERO BEAT will be October 28.

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Editorial

'INCENTIVE' FOR WHAT?

As the time for the second half of the implementation of "incentive Licensing" draws near---next month--we are beginning to wonder, after studying comments of many radio amateurs and those published in various amateur radio club publications, just how much of an "incentive" the program really is and just what it is accomplishing.

In line with our thoughts on this matter we are reprinting an article which appeared in the September issue of the Denver Radio Club's "The Round Table," under the heading of "The Tocsin." The ideas expressed in this article seem to well express the very thoughts on the matter which have been noted from many sources.

"Another day decision looms before us, as the second half of the 'IL' (incentive licensing) program will soon take effect--that is unless the FCC sees fit to postpone or better yet to rescind and modify it!

"Even a casual tuning across the amateur bands will establish certain facts. Number one---we find that our traffic and emergency nets have found it necessary (contrary to what we were told) to seek their lowest common denominator, the unrestricted parts of the amateur bands, where the Conditional and the General may operate. All nets have already made the move or are belatedly doing so. Therefore we find that during those prime operating hours that one net is stacked on top of another in that unrestricted part, only an occasional phone patch and some casual rag-chewing is going on. This fact was brought home most pointedly during the Camille disaster. It now seems safe to assume that nets compost of just Extra and Advanced Class licencees are not really feasible.

"Number two--Percentage figures being bandied about as to the success of the program are not really meaningful. Let us instead look at concrete figures. We can compare numbers between the Summer Edition of the 1968 Call Book and the Summer Edition of the 1969 one: (X means Extra and A means Advanced. C is for Colorado and N for nationally. T is for Total).

	E-C	A-C	E-N	A-N	T-N
1968	87	516	6104	39406	290,429
1969	115	638	9047	48180	282,104

The Fall Edition now on sale will of course see further upward trends and the listing will appear in the next Round Table.

"So now we find that there was an increase N of less than 2900 Extra Class licensees during the year and who will doubt that the 'two letter call' 'incentive' was as potent a factor as the operating priveleges? Less than 9000 Advanced Class licensees N out of a total of 290,429. An unmitigated flop, even though the code was not a factor and the technical questions reportedly very easy.

"Number three--This concerns Colorado only. In going through the IBM cards

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OCTOBER MEETING

(Continued from Page 1)

WØMCT; John Felix, KØSLN; Dean Jaynes, WAØPHJ; John T. Kester, WAØLVL; Charles "Chuck" Myers, WAØZCS; Steve Parker, WAØSIZ; Oakley Stockton, KØROL, and Darrell D. Vogt, WAØUGW---in addition, in accordance with provisions of the PPRAA constitution, to the current members whose terams are expering: Rosemarie Lewis, WAØMNL; Rudy Wroblewski, WAØPJG; Harold Combs, WAØPNR, and Ed Pompea, KØZPG.

However, since the last Zero Beat, three of the nominees have withdrawn from participation in the coming election. John Felix has declined to run and Rosemarie Lewis and Rudy Wroblewski have stated that they are not interested in running again at this time. This leaves 11 members to be considered for the four board vacancies. There were no additional nominations submitted to the secretary in writing within the prescribed time limit.

As a reminder to older members and as information for those who have joined since the last election, the balloting for the four officers of the club---as provided by the constitution and an amendment adopted by popular vote of members last year---will follow the balloting for the four new board members. To be eligible for one of the four offices, a candidate must be a member of the board of directors.

In addition to the importance of voting for the officers to direct the activities of the club for the next year, the special film should add to the interest to make this a meeting no one should miss.

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The PRESIDENT'S COLUMN

Again it's time for the most important meeting of the year---election of officers. I hope all of you plan to attend and elect the officers who will best serve your club.

Thank you for your support the past year. It is truly gratifying to start toward an objective and find the club behind you---eager to help in any way they can.

I want to extend my thanks and well done to our editor of Zero Beat, Frank Craw, for the effort and extra time that he has put in to get out our fine club paper. Also a special thanks to the Board of Directors for their spirit and cooperation and direction in running the club.

I enjoyed being president, and will stand ready to assist the new officers in any way I can. 73s

---Pete, KØUDG

-o-o-o-o-

Have you sent your letter about the cost of call letter license plates? Whether you have or not, there'll be one for you to sign at the October meeting.

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INCENTIVE FOR WHAT?

(Continued from Page 2)

on file for our Colorado Ham Directory, a trend of some concern is seen. This is that many many licenses of long standing are being dropped. In going through the Colorado calls beginning with the letter 'W' we find that out of 240 calls, 17 'W's' did not renew. It is long past time that the $4.00 fee for renewal would have any bearing on this. Twelve 'K's' did not renew and only 2 'WA-0's'. Similar trends were noted in all previous letters of Colorado calls. We suspect that this trend will continue all through the check being made. Why?

"'Good riddance of non-active hams.' An asinine statement!

"Fourth--have you noticed the operating congestion on the unrestricted portions to that on the restricted part? Would you say 5 to 1 or perhaps even 10 to 1?

"The time for 'face saving' is now past. A better program must be demanded. If a goodly majority of hams want it, it will happen. Apathy now will only compound the shambles we now have.

"Is there ab alternative? Yes. It is not a cure-all but should be of some help.

"A change in the CW versus phone allotments on the amateur bands is long overdue. With the advent of SSB, which has now almost completely taken over on the lower frequencies, and the light weight hetrodyne types of gear, more amateurs operate this mode than any other, even though CW does have its completely and honestly 'Gung-ho' advocates.

"So let us suggest these changes. On 75 meters drop the phone portion down to 3750, which only splits the band 50-50, leaving CW still the largest part due to the band width needed to operate and the fact that CW is still allowed even in the phone portions. This would give another 50KHz up in that region where it is most needed for the essentials of amateur operation that we are told (we hope truthfully) is the amateur's life blood, emergency and traffic operation devoted to the Public Interest as opposed to 'hobby' operations.

"Forty meters should be operated on in similar manner. Fifty KHz. On Fifteen, leave it as it is along with ten, two and six, No further 'IL' implementation pending further study. Repeater operation is changing the face of two and also on 420 MHz.

"The ARRL Advisory Committees have not even made a dent in looking towards the future.

"On twenty meters, the so-called international DX band, what is in store? The sun spot activity cycle is supposed to go to a near record low, if not a record one. It seems that 20 may be nearly useless for hours on end and that DX will shift to 40 and have to battle the international broadcasters even if the band is not further cut at forthcoming international frequency allocations conferences.

"In view of the above statements which have been the results of quite some study and observation, it is recommended that 'IL' be left as it is now. That the League or some other amateur group gather together a group to make a rather comprehensive study of that which may well come in the future and that these recommendations have a real basis 'in fact' so that all who view them may well be convinced that 'this is the way to go.'

"This is what is really lacking now."

Which prompts us to add the following:

Has this much-glamorized "Incentive Licensing" program resulted in an incentive for amateur radio operators to try to improve their knowledge and operations and thus aid in "improving the art"---an early conception of the part played by those interested in amateur radio operations, or is it an "incentive" to cause confusion and result in many of the amateur radio operators throwing up their hands to say "The heck with it all"?

However, there may be a ray of hope, if proposed ARRL plans materialize and the

(Continued on Page 5)

FCC "goes along" with them. Carl Smith WØBWJ, Rocky Mountain Division Director, in a September 5 letter, states that a special ARRL board meeting has been authorized for November 1 and one of the recommendations to be considered is increased phone band allocations.

Carl states that "Prior to the May '69 meeting, the membership of this division indicated that (1) 55% favored a review of total band occupancy, 5% opposed, and 40% no comment; (2) a review of phone band occupancy (with the suggestion that phone subbands be increased) was favored by 45%, 14% opposed and 41% no comment; and (3) an increase of privileges for Advanced Class licensees was rejected by 25% yes, 54% no, and 32% no comment."

It will be well for the ARRL, and we hope the FCC to heed the above expressions of ideas from amateurs.

We agree with the writer of the Round Table article that a further comprehensive study of the matter is called for to convince the amateur radio operators that "this is the way to go," rather than to confuse them to the extent that some valuable contributors to the art of electronics may well become disgusted with the present "mess" and be lost to amateur radio because of what right now seems to be more of an incentive to leave amateur radio than to continue in it. ---Frank, WØHWH

BE SURE YOU INCLUDE YOUR CALL SIGN DURING LAST TRANSMISSION

(The following is from a letter from Carl Smith,, WØBWJ, Rocky Mountain Division ARRL Director.)

Are you familiar with Sec. 97.87(a) of the FCC regulations? Amateur station identification requirements stipulate that the last transmission of your exchange must include your own call sign. This is a common oversight during contest operation and has resulted in FCC citations as well as OO notices. The following is a clarification quoted from a letter by Mr. Barr, Chief, Safety and Special Radio Services Bureau; "Where the transmissions of an exchange are very brief, such as the typical contest exchange, if it is less than 30 seconds duration, the entire last transmission is considered the 'end of exchange' for the purpose of compliance with 97.98(a). Provided there is no mistaking which is the transmitting station's call sign, the call signs may be anywhere in the last transmission." It was further stated that continuation of the traditional practice of placing the transmitting station's call sign last or preceding it by "de" is acceptable for this purpose. For phone operation, the voice equivalent of the usual CW abbreviations are acceptable.

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Don't leave it up to the other members ---come and cast your vote October 8.

CW

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UNDERSTANDING TRANSISTORS

By Jim White, Assoc. Mem., M.E.M.E.

(This is the third of a series of lessons on transistors written by Jim White, ex-GM8KR, formerly of Scotland and now teaching in California, which originally appeared in the Tulare County (Calif.) Amateur Radio Club "Grid Leak," which are being reprinted from the Central California Radio Council "Circle."---Editor)

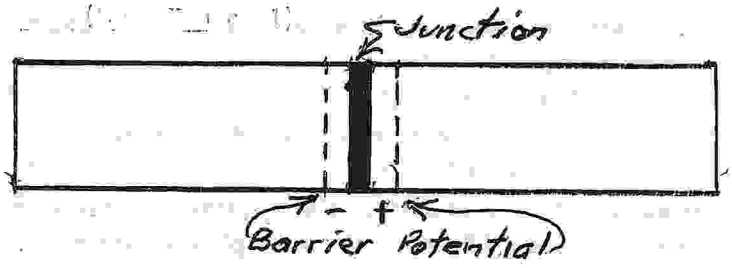
Lesson 3

When the base potential of a transistor is brought closer to the collector potential, the collector current will increase. When brought closer to the emitter potential, the collector current will decrease. When at emitter potential, no base current will flow. The transistor is cut off. This is equivalent to zero bias on the grid of a tube, but, under these conditions, a tube will react just the opposite; the plate current will be nearly at maximum.

perhaps the simplest and most practical approach to understanding transistor operation is to consider a transistor as two diodes back to back. Much of the transistor operation is identical to diode operation, and, as such, requires explanation in this light.

Transistors and diodes (rectifiers) are composed of two types of semi-conductor materials, N type and P type. This simply means that controlled impurities are added to the basic semi-conductor mateiral to form one type with an excess of electrons (N type) and another with a deficiency of electrons (P type). When N type material is joined to the P type material, an interesting effect occurs at the surface where the two materials join.

This joining is called a P-N junction. Some of the free electrons in the N type diffues across the junction into the electron deficient P type material. This continues only momentarily until the N type material at the junction acquires a slight positive charge, and the P type at the junction, a slight nehative charge. A state of equilibruim is reached whereby further diffusion of electrons is discouraged by this potential difference. The potential (internal) at the junction is called a potential hill, energy barrier or potential barrier.



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* SILENT KEY - - - *

* Philip Kraushar, KØJXQ, passed * away August 14, after a prolonged illness and was buried the following day. * Phil was a past president of the PPRAA * and was very active in PPRAA activities * prior to his illness. He is survived by * his XYL, Mabel; son, Leonard; three * grandsons and a granddaughter. Phil * who was much missed during his long * illness, will be even more missed due * to his passing. *

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(From the Denver Radio Club's "Round Table.")

"The world's strongest permanent magnet material has been developed by a Raytheon Company scientist, according to a recent announcement.

"It was developed by Dr. Dilip K. Das from material based on cobale and the 'rare earth' element samarium.

"It offers an immediate replacement in Raytheon's microwave tubes and is four times as strong as most alnicos and twice as strong as platinum cobalt.

"Samarium is a fairly common element and platinum is not, as principal sources are the Soviet Union and South Africa."

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Don't forget the meeting October 8.

ROSIE'S REPORTINGS

By Rosemarie Lewis, WAØMNL

-rr-

The High Noon Net has changed frequency to 7280. This net meets (hi) noon every day.

-rr-

After 30 years of dedicated service as QSL manager for Zero district, WØMDA, Alva Smith, asked to be relieved of the job. The bureau service is now handled by The Des Moines Radio Amateur Association, P. O. Box 88, Des Moines, Iowa.50301. If you had an envelope with DMA, it was forwarded to the new bureau.

-rr-

Chic Cotterell, WØSIN, our SCM, requests that anyone handling any messages send a report to him via mail or radiogram at the end of each month. This helps him compile the traffic count for Colorado. Any one needing help on the report, I'll be glad o help whatever i can. Lat's all support our SCM and Colorado.

-rr-

At the October meeting, all PPRAA members will be given the opportunity to sign a letter of objection to the increased cost of call letter license plates. A letter is being written and those wishing to sign it may do so before it is sent to the parties concerned.

-rr-

After a few days in Arizona, George Kowalski, WØGCH, and family decided to plan to remain here. Our gain.

-rr-

The new call of Allan Monderer is WAØZOH. That makes him a Colorado amateur now.

-rr-

A new call in the Novice Class is WNØZEB, Jack Connelly, Jr.. His dad is Jack Sr., KØPZE.

-rr-

Annabell Meck, KØWZN, and OM Eldgin spent a week fishing and haming mobile from [illegible]

-rr-

Marble Rock, Colo. I heard some talk about hiring a van to bring all the fish home.

-rr-

John Summer, WAØHHN, has done well on the fish score also. Eldon Lewis, WAØERA, has fishing equipment but not lucky enuf to even get one nibble.

-rr-

Pete Demario, KØUDG, is still talking about the one Ida, WAØNTA, caught on his fishing gear while on their Colorado vacation.

-rr-

John Felix, KØSLN spent three weeks in Dayton, Ohio, attending a school pertaining to his work as engineer at the Air Force Academy. He rated 97.7 on his final exam.

-rr-

Doug Wilson, WNØVSL, spent a goodly part of the summer in the hospital. He has returned to school and every indication is that his health will permit him to attend regularly.

-rr-

Russell, WAØVSN, is enjoying his new TR4.

-rr-

Linda Lewis, WAØMBM, received the Employee of the Month award on the last day of her summer job at Maytronics.

-rr-

Dave, WAØWLE, is enjoying a new Swan 500 and a new Karman Gia car.

-rr-

Jim Russell, WØJMB, retired last January and since then has worked more than 1,300 DX stations. Some of them quite rare. He has earned the WAZ (Worked All Zones) award for having worked all 40 zones. Jim enjoys ragchewing with the DX stations and has made many friends throughout the world, friends with whom he visits regularly on radio. It is not unusual for Jim to receive as many as 60 DX cards in one month from his DX-CW contacts.

-rr-

Dick, KØJUA, is credited with assist-

(Continued on Page 8)

ROSIE'S REPORTINGS

Continued from Page 7)

ing in the recent search for lost persons in the Minturn area.

-rr-

The National Industry Advisory Committee is assisting FCC in developing a report on the effect of communications as a direct result of Hurricane Camille. The Amateur Radio Subcommittee of NAIC has been asked to query amateurs on certai matters. All amateurs who took part in the Camille operations have been asked to respond to a few questions. A copy of the questions can be obtained from Chic Cotterell, WØSIN, SCM, or from me.

-rr-

Don't forget to attend the meeting on October 8---there'll be a good movie and you should be there to vote!

ZERO BEAT EDITOR
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